

# OWNER'S GUIDE

**Model No. 110-530**

10 CENTS

## ROTARY MOWER

### WARRANTY

For one year from date of purchase, MTD Products, Inc., will replace for the original purchaser, free of charge, F.O.B. factory or authorized service firm, any part or parts found to be defective in material or workmanship. All transportation charges on parts submitted for replacement under this warranty must be paid by the purchaser. This warranty does not include replacement of parts which become inoperative through misuse, excessive use, accident, neglect, improper maintenance or alterations by unauthorized persons. This warranty does not include the engine, motor, battery, battery charger or any component parts thereof. For service on these units refer to the applicable manufacturer's warranty.

The above warranty will apply only to the original owner and will be effective only if the warranty card has been properly processed. It will not apply where the unit has been used commercially.

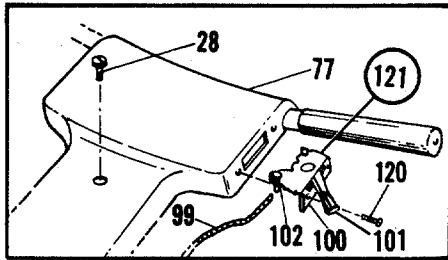
Warranty service is available through your local authorized service dealer or distributor. UNDER NO CIRCUMSTANCES WILL THE RETURN OF A COMPLETE UNIT BE ACCEPTED BY THE FACTORY UNLESS PRIOR WRITTEN PERMISSION HAS BEEN EXTENDED.

### SAFETY RULES

Your rotary mower is a precision piece of power equipment, not a plaything. Therefore exercise extreme caution at all times.

1. Remove all sticks, stones, wire and other hazardous items from lawn before mowing. Such items are dangerous to both the mower and individuals in the vicinity of the mower.
2. Always disconnect spark plug cable during repairs or refueling operations.
3. Always start engine from side opposite discharge chute.
4. NEVER place hands or feet under mower or near discharge chute while engine is running.
5. Do not tilt mower at extreme angle while engine is running. Cut grass on hills and banks sideways, not up and down.
6. Always stop engine when not cutting grass.
7. Do not fill gas tank while engine is running. Do not spill gasoline on hot engine.
8. Keep children and pets away from area at all times during mowing operation. Never allow mower to discharge grass toward any person.
9. Do not attempt to start engine while mower is resting in high grass.
10. Check all nuts and bolts, particularly the blade bolts, for tightness. This is especially important during the initial operation period. Make this same check periodically thereafter.

NOTE: Should excessive vibration develop, check your blade and crankshaft immediately. Do not operate mower with an unbalanced blade, a damaged blade or a damaged crankshaft.

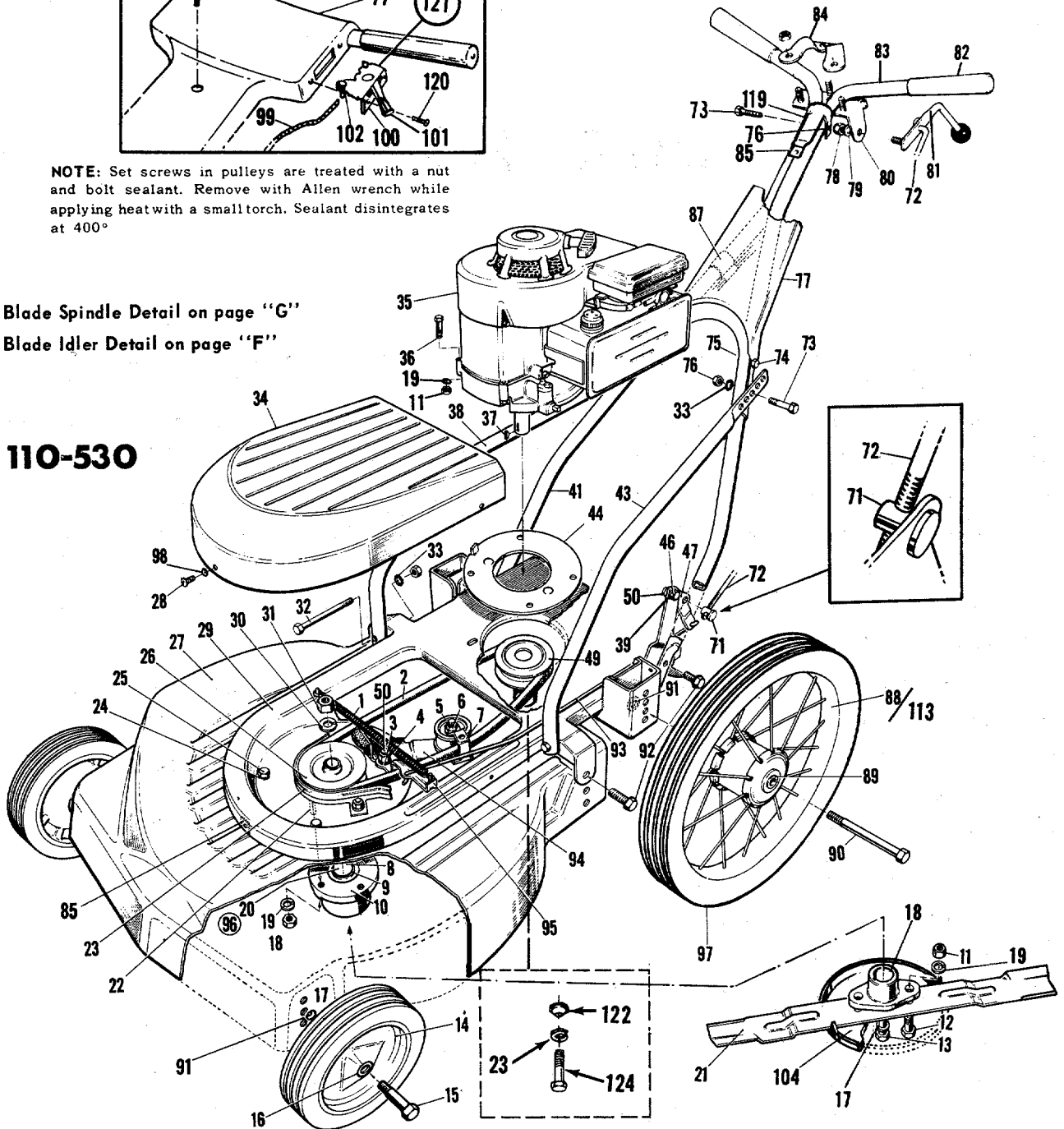


NOTE: Set screws in pulleys are treated with a nut and bolt sealant. Remove with Allen wrench while applying heat with a small torch. Sealant disintegrates at 400°

Blade Spindle Detail on page "G"

Blade Idler Detail on page "F"

# 110-530



- NOTE: To engage the blade with the engine running..
1. Move the throttle control lever to "FAST" position.
  2. Engage the blade engagement lever SLOWLY.
  3. Adjust engine speed.

NOTE: This instruction manual covers various models and all accessories shown do not necessarily apply to your model mower.

MTD PRODUCTS INC extends its warranty only on the mower. If repairs or service is needed on the engine, please contact your nearest authorized engine service outlet. Check the "Yellow Pages" of your telephone book under "Engines - Gasoline"



**PARTS LIST FOR ROTARY MOWER MODEL NO. 110-530**

Ref. No.	Part No.	NAME OF PART	Ref. No.	Part No.	NAME OF PART
1	732-158	Blade Tension Spring	71	711-179	Ferrule
2	754-109	V Belt - 1/2 x 43 *	72	711-180	Control Rod
3	736-300	Flat Washer - 3/8 I.D.	73	710-606	Hex Hd. Cap Scw. 1/4-20 x 1-1/2 long *
4	710-373	Shoulder - Special	74	710-106	Hex Hd. Cap Scw. 1/4-20 x 1-1/4 long *
5	756-370	Idler Bearing Assembly	75	712-287	Hex Nut - 1/2-20 thread *
6	712-372	Centerlock - Hex Nut - 5/16-18 thread *	76	712-107	Centerlock - Hex Nut - 1/4-20 thread *
7	310-7353	Bracket - Belt	77	395-9366	Control Panel
8	711-212	Sleeve	78	712-324	Elastic Stop Nut - 1/4-20 thread *
9	741-120	Bearing - Upper	79	736-325	Flat Washer - .265 I.D. *
10	719-120	Spindle Housing	80	310-8376	Lockout Bracket Assembly
11	712-123	Hex Nut - 5/16-24 thread *	81	310-8373	Lockout Lever Assembly
12	710-117	Hex Head Cap Screw (heat treated) - 5/16-24 x 1 long	82	305-7072	Grip - White
13	710-113	Hex Hd. Cap Scw. 3/8-24 x 1-5/8 long *	83	310-9364	Handle - Upper
14	501-9383	Wheel Ass'y - 8" Waffle - B.B.	84	310-8378	Clamp Bracket
15	738-213	Axle Bolt - 5/8 length thread	85	712-526	Speed Nut - 10-24 thread *
16	741-114	Ball Bearing	87	746-145	Cable Clip
17	736-169	Spring Lockwasher - 3/8 screw *	88	734-180	Wheel Assembly - 16" less tire
18	748-100	Blade Adapter	89	741-113	Ball Bearing
19	736-119	Spring Lockwasher - 5/16 screw *	90	738-114	Axle Bolt
20	711-240	Spindle	91	736-105	Belleville Washer
21	312-7581	Blade - 22"	92	710-209	SEMS Hex Hd. Cap Scw. 3/8-16 x 5/8 lg.*
22	710-122	Hex Hd. Cap Scw. 5/16-24 x 1 long *	93	310-9373	Control Rod
23	312 8324	Belt Guard	94	310-8298	Idler Bracket Assembly
24	712-123	Hex Nut - 5/16-24 thread *	95	310-9371	Brake Lever
25	710-122	Hex Hd. Cap Scw. 5/16-24 x 1 long *	96	901-7805	Blade Spindle Ass'y - Complete H.W.
26	3-9925	Pulley - 4"	97	734-179	Tire - Rib Tread 16 x 1.75
27	395-8756	Deck Assembly - 22"	98	736-147	Ext. Lockwasher - #10 screw *
28	710-473	Truss Hd. Mach. Scw. 10-24 x 1/2 long *	99	732-139	Conduit & Wire 37-1/2 x 39-13/16
29	395-8280	Frame Assembly	100	310-8508	Control Bracket Assembly - Throttle
30	736-921	Spring Lockwasher - 1/2 screw *	101	305-7470	Knob
31	712-922	Hex Jam Nut - 1/2-20 thread *	102	901-7627	Ferrule Assembly - Complete
32	710-102	Hex Hd. Cap Scw. 1/4-20 x 2-1/2 long *	104	312-7919	Anti Scalp Plate - 8-1/2"
33	736-222	Ext. Lockwasher - 1/4 screw *	110	710-938	Allen Set Screw - 1/4-28 x 1/4 long * (not shown)
34	395-8295	Blade Spindle Cover	111	741-107	Bearing - Lower - Blade Spindle
35	—	Engine	113	502-8761	Wheel Ass'y Complete
36	710-158	Hex Hd. Cap Scw. 5/16-24 x 1-1/4 long *	114	736-154	Washer
37	714-365	Key - Hi Pro #505 *	115	721-105	Seal
38	310-8328	Handle Support - Lower R. H.	116	737-479	Zerk Fitting
39	736-108	Flat Washer - 33/64 I.D. *	117	728-649	Rivet
41	310-8334	Handle - Lower H. W.	118	754-647	Brake Shoe
43	310-8327	Handle Support - Lower L.H.	119	310-8378	Clamp Bracket
44	310-8325	Belt Trap Assembly	120	710-148	Thread Cut Screw #8-32 x 3/8 lg.*
46	738-234	Pivot Screw	121	310-8357	Throttle Control - Complete
47	310-9372	Pivot Bracket	122	736-112	Belleville Washer
49	756-110	Pulley - Engine	123	736-169	Lockwasher 3/8 Screw. *
50	712-430	Elastic Stop Nut - 3/8-16 thread *	124	710-152	Hex Head Cap Screw 3/8 - 24 x 1 lg.*
51	300-8809	Reinforcement Plate		718-132	Plastic Cap - Rear Wheel (not shown)

\*For faster service obtain standard nuts, bolts, and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

# ASSEMBLY INSTRUCTIONS

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8. Fasten control panel to upper handle with cap screws and locknuts at lower holes and truss head screw through upper hole. Tighten all nuts and bolts.
5. Assemble speed nut to clamp bracket. Assemble clamp bracket to upper handles with long yellow bolt and nut as shown.
2. Assemble upper handle parts with cap screws and locknuts as shown.
7. Assemble throttle control to handle panel with two sheet metal screws.
6. Assemble lockout bracket assembly to upper handle. Tighten nuts securely.
4. Assemble upper handles and lower handle supports to lower handle assembly with cap screws and locknuts. Position supports for most convenient height. Use lower holes only.
1. Fasten lower handle assembly to frame assembly with SEMS cap screws.
3. Attach lower handle supports to frame assembly with cap screws, lockwashers and hex nuts.
9. Blade Engagement Assembly
- Remove Blade Spindle Cover by removing three screws.
  - Move brake lever to rear position so *belt is slack*.
  - Insert ferrule into blade bracket assembly from the left.
  - Screw rod into ferrule.
  - Assemble control handle to control rod as shown.
  - Adjust control rod. A slight pressure should be needed to operate lockout lever. Too much pressure can break lever assembly or control rods. Readjust control rods if pressure is too great.
  - Replace Blade Spindle Cover.

## OPERATION

1. Before starting engine, check LUBRICATION INSTRUCTIONS.
2. Check lockout control handle for proper operation. If too great a pressure is needed to operate these controls, damage can be done to both the mechanism and the rods. Readjust so only slight pressure is needed to operate the blade engaging control. See ASSEMBLY INSTRUCTIONS Step 9.
3. Service engine with gasoline and oil. See engine instructions for complete care and maintenance of engine. READ DIRECTIONS CAREFULLY.
4. Be sure engine crankcase is filled to capacity with proper grade of oil.
5. Move control handle to "OFF" position.
6. Move throttle control lever to "Choke" position.
7. Crank engine. Move throttle control lever to "Fast" position as soon as engine fires. Use choke as needed to keep engine running during warm up period.
8. Put blade into motion by moving blade control handle to "On" position.  
  
To engage the blade with the engine running . . .
  - a. Move the throttle control lever to "Fast" position.
  - b. Engage the blade engagement handle SLOWLY.
  - c. Adjust engine speed.
9. A brief break-in period is essential to insure maximum engine and mower life. This consists of running the engine a half speed for a period of time required to use one tank of gasoline. It is also recommended to change crankcase oil after the first five hours of operation or as operating conditions dictate. Always check oil before operating the mower. BE SURE CRANKCASE IS FULL.
10. Proper lubrication must be maintained at all times.
11. Appropriate clothing should be worn when cutting brush or heavy weeds. Safety shoes and safety glasses are highly recommended.
12. The engine is stopped by moving the throttle control lever to "STOP" position.

## ADJUSTMENT

1. Handles may be adjusted by changing the position of the lower support mounting holes. When this change is made, it may also be necessary to check the adjustment of the control rod. See Step 9 in ASSEMBLY INSTRUCTIONS.
2. Control rod adjustment is made as shown in ASSEMBLY INSTRUCTIONS Step 9.

3. Cutting height adjustment is made by removing and moving axle bolts to the desired positions. Cutting height will be raised as axle bolts are moved to lower mounting holes and lowered as axle bolts are moved to higher mounting holes. All axle bolts must be mounted in the same relative position to the deck. When wheels are mounted to the deck, the *crown shape washers must be assembled with the crown away from the deck*. This is necessary to prevent the axle bolts from loosening.
4. If throttle adjustment becomes necessary, the throttle control wire may be reset as follows:
  - a. Loosen, but do not remove, screw securing throttle control wire assembly at engine.
  - b. Move throttle control lever on handle to "Choke" position.
  - c. Move lever to which control wire is fastened to engine to full choke position. Retighten screw to secure throttle control wire assembly.

## LUBRICATION

**Important:** Always stop engine and disconnect spark plug wire before cleaning, lubricating or doing any kind of work on the lawn mower.

1. Wheel bearings are ball bearings. Use SAE 30 engine oil.
2. Throttle - Periodically lubricate throttle control lever and entire length of throttle wire assembly with a few drops of SAE 30 engine oil for ease of operation.
3. Engine - Follow engine manual for lubrication instructions. Check oil level before each mowing.
4. Friction point between idler bracket assembly (Ref. No.94) and deck should be greased once each season with a multi-purpose grease.
5. Blade Spindle Assembly - The Blade Spindle Assembly is equipped with a grease fitting. Use grass discharge chute for access to the fitting located under the deck. Use multi-purpose grease. Lubricate PRIOR to initial use and every 25 hours thereafter. CAUTION: Be sure spark plug wire is disconnected and grounded.

## MAINTENANCE

**Important:** Always stop engine and disconnect spark plug wire before cleaning, lubricating or doing any kind of work on the lawn mower.

1. Cutting Blade - Remove all nuts and bolts holding the blade to the blade hub.

When sharpening blade, follow the original angle of of grind as a guide. It is extremely important that each cutting edge receives an equal amount of grinding to prevent an unbalanced blade. An unbalanced blade will cause excessive vibration when rotating at high speeds and may cause damage to the mower.

Upon reassembling, make certain all parts are assembled properly and tightened securely.

2. Deck – The underside of mower deck should be cleaned after each period of use as grass clippings, leaves, dirt and other matter accumulates. This accumulation of grass clippings, etc. is undesirable as it will invite rust and corrosion and may cause an uneven discharge of grass clippings at next cutting.

The deck may be cleaned by tilting the mower backward or on its right side and scraping clean with a suitable tool or by washing with a stream of water from a garden hose. CAUTION: Do not direct the stream of water at a hot engine as damage to the engine may result.

3. Belt replacement may be made as follows:
  - a. Remove blade spindle cover.
  - b. Remove front belt guard.
  - c. Remove blade tension spring.
  - d. Loosen belt on bracket of idler bearing assembly.
  - e. Remove brake lever assembly.
  - f. Remove damaged or worn belt.
  - g. Place new belt on engine pulley. Do not bend belt guard pins. Belt should be inside of pins.
  - h. Work belt to front and mount on blade spindle pulley. Replace front belt guard.
  - i. Replace brake lever assembly.
  - j. Slip belt on idler pulley between pulley and belt bracket.

- k. Replace blade tension spring.
  1. Move blade lockout handle to "ON" position.
- m. Position belt bracket on idler pulley to clear the tightened belt. Secure belt bracket in position. See Drawing page "C".
- n. Replace blade spindle cover.
4. Storage – The following steps should be taken to prepare lawn mower for storage:
  - a. Clean and lubricate mower thoroughly as described in the preceding instructions.
  - b. Refer to engine manual for correct engine storage instructions.
  - c. Coat mower's cutting blade with multi-purpose grease to prevent rusting.
  - d. Place blocks under deck to raise tires clear of floor.
  - e. Store mower in a dry, clean area.

### USING YOUR ROTARY MOWER

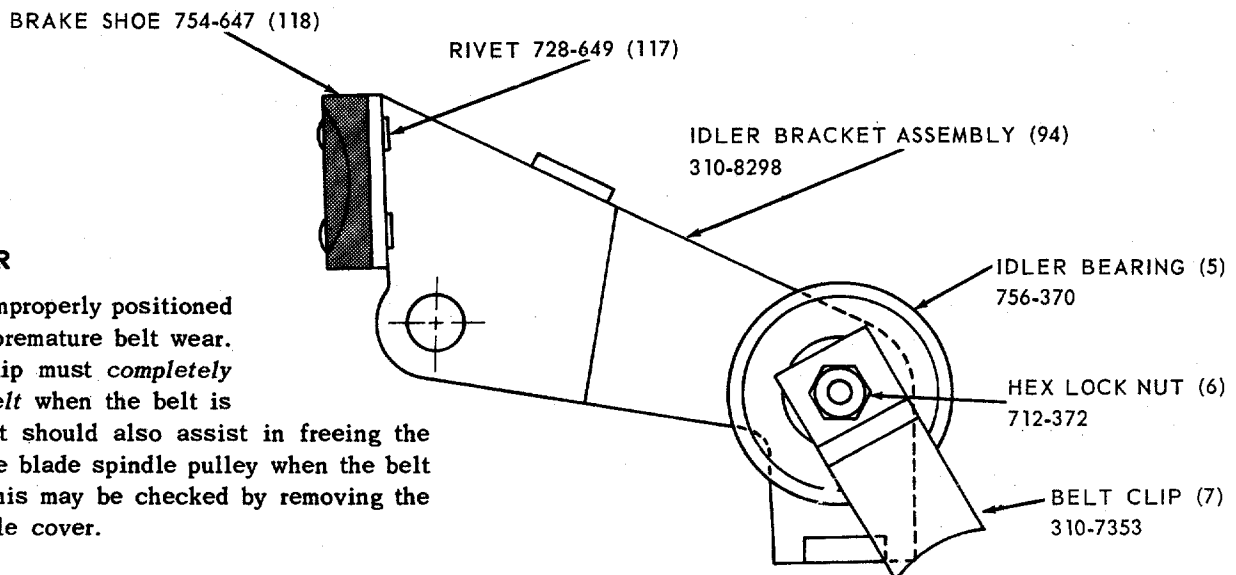
For best results do not cut wet grass because it tends to stick to the underside of the mower, thus preventing proper discharge of grass clippings. If wet grass must be cut, reduce engine speed to help distribute the clippings more effectively.

New grass should be treated as wet grass, otherwise a normal walking speed is about the right pace for efficient mowing.

The best mowing pattern is one that allows the clippings to discharge towards the uncut part of the lawn. This permits recutting of the clippings to further pulverize them. When cutting high weeds, discharge towards cut portion then recut at right angle to first direction.

Lawns should be cut in fall as long as there is growth.

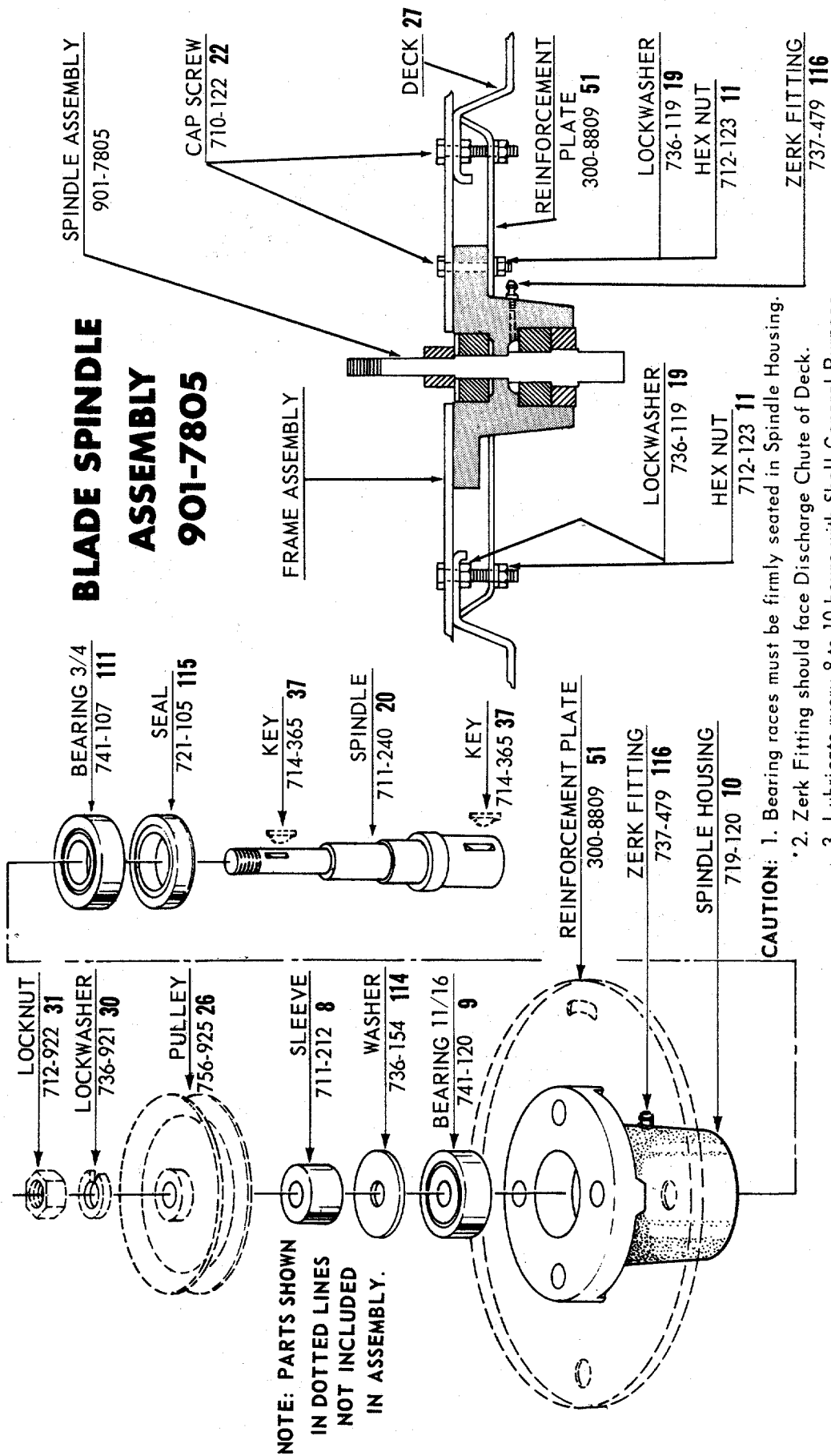
## BLADE IDLER BRACKET ASSEMBLY DETAIL



### BELT WEAR

Belt clips improperly positioned will cause premature belt wear. The belt clip must *completely clear the belt* when the belt is tightened. It should also assist in freeing the belt from the blade spindle pulley when the belt is loose. This may be checked by removing the blade spindle cover.

# BLADE SPINDLE ASSEMBLY 901-7805



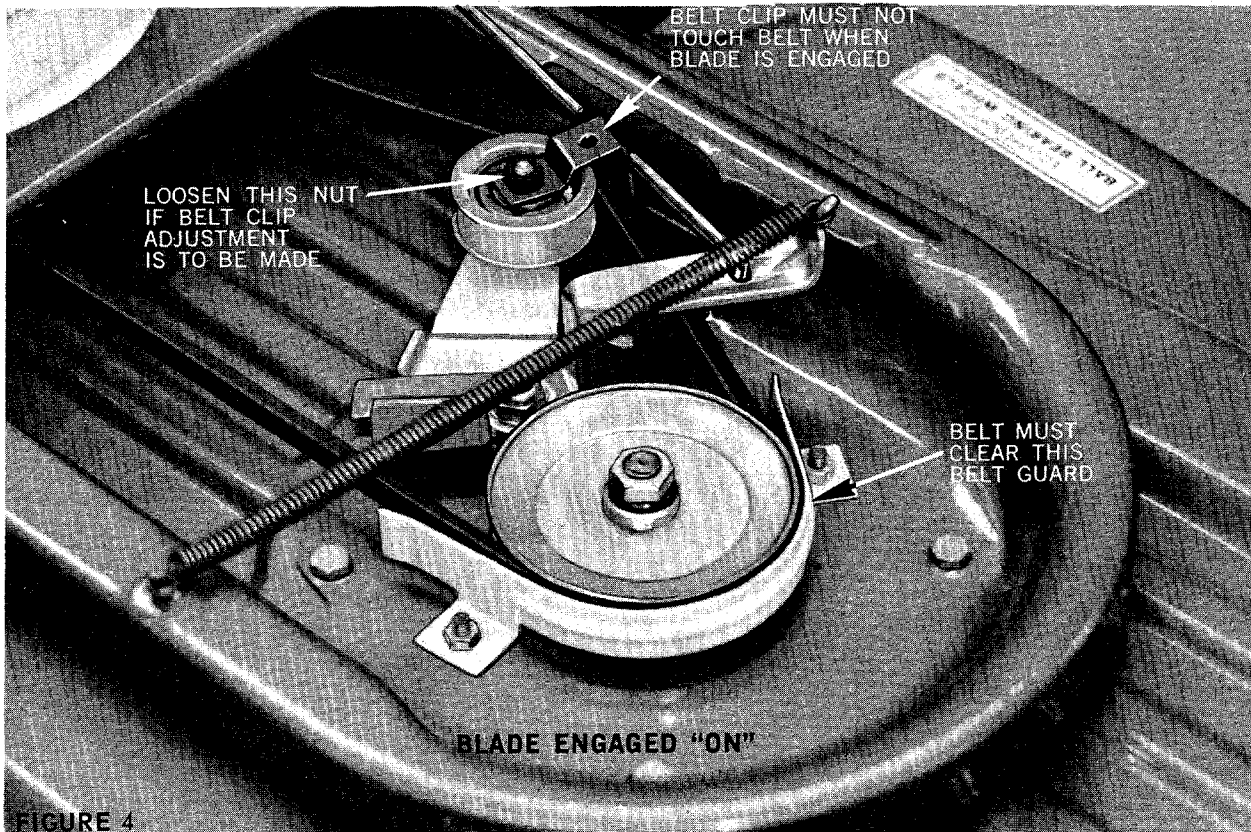
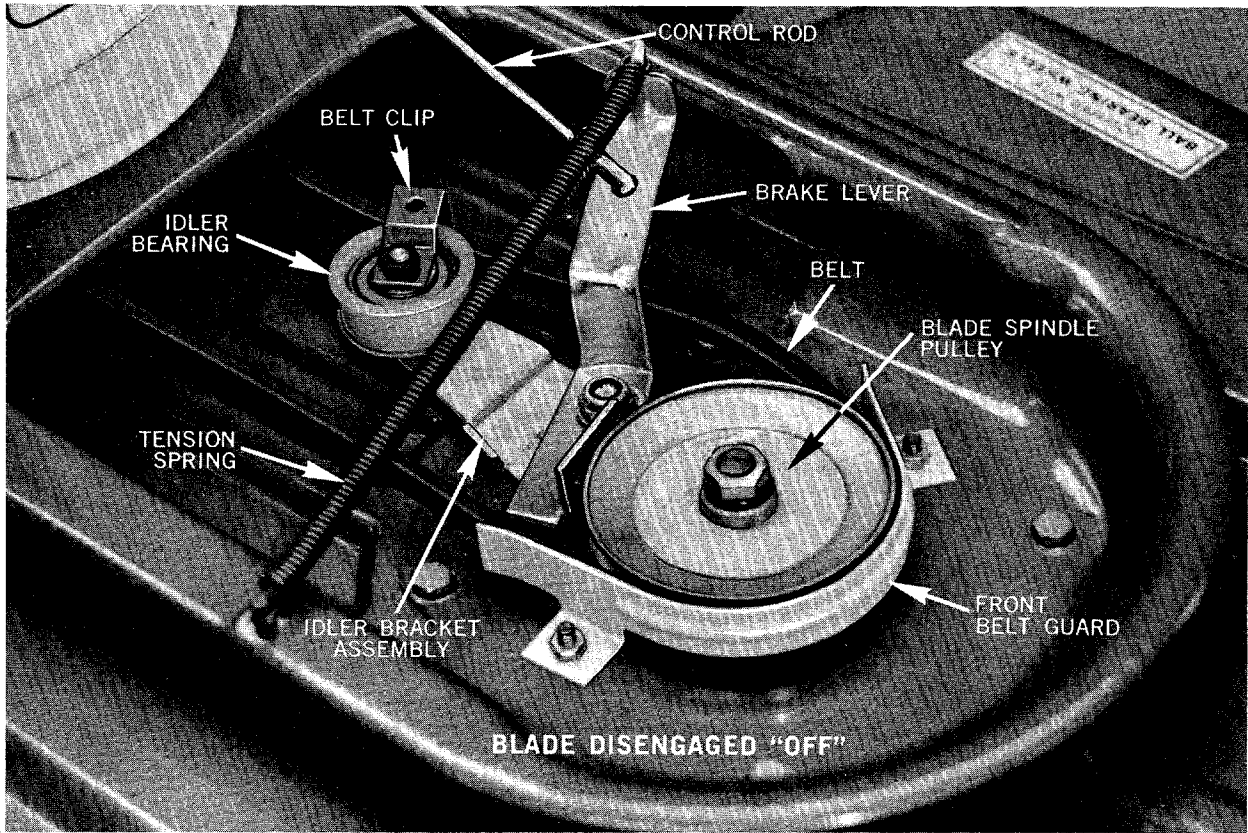


FIGURE 4